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Book review

The Waterlilies

The Waterlilies: A Monograph of the Genus Nymphaea, by H.S. Conard. Lark Publications, Suffolk, UK, 1991 (facsimile reprint of 1905 edn. with an introduction by Philip Swindells). viii + xiii + 279 pp. + 30 plates, £95.00 (hardcover), £28.00 (paperback), ISBN 0-948697-17-2.

Henry Conard's historic monograph of the genus *Nymphaea* should be familiar to every serious student of water lilies. Unfortunately, this epic treatment has been out of print and unavailable for decades. Lark Publications has resurrected this important work by issuing a facsimile reprint of the original 1905 edition that is available either as a handsome, jacketed hardcover edition (with a sturdy, sewn binding) or a less expensive 'student' paperback edition.

The Lark reprint reproduces "... the original publication of 1905 in its entirety", with several additions and some alterations. The hardcover edition features a durable green binding with inner cover boards that are furnished with an attractive Victorian water lily design. The original publication had gray, lightweight paper covers without decoration (R.P. Wunderlin, University of South Florida, personal communication), although many original copies that survive at other institutions have been rebound with an assortment of covers. A flyleaf from the original, which simply read 'THE WATERLILIES', has been omitted; a flyleaf bearing the same Egyptian motif found on page one has been added. The frontispiece of the reprint features an appropriate full page photograph of Henry Conard provided by his family. There is an introduction to the reprint by noted water lily author Philip Swindells and a brief biographical summary of Conard.

The most noticeable alteration to the original text is the grouping of all 30 plates between the table of contents and start of chapter one, a change made by the publisher to facilitate their printing. This alteration does not present much of a problem; however, for some reason, the printer has also changed the numerical sequence of plates in the 'Description of Plates' on pp. ix-xi which does not match the original and is confusing. Also, most of the plates have been renumbered with only 13 of the 30 plates numbered correctly (Plates 1, 6, 7, 10, 17, 21, 22, 23, 24, 25, 27, 28, 29). This makes it frustrating to locate plates from the citations in the text. I can't imagine why this was done. According to the text and the 'Description of Plates' from original copies of the monograph at the University of Alabama and University of New Hampshire (information courtesy of R.R. Haynes and D.J. Padgett), the following errors in plate numbering occur: Plate 2 (= Plate 4), Plate 3 (= Plate 8), Plate 4 (= Plate 11), Plate 5 (= Plate 12), Plate 8 (= Plate 13), Plate 9 (= Plate 15), Plate 11 (= Plate 9), Plate 12 (= Plate 18), Plate 13 (= Plate 19), Plate 14 (= Plate 20), Plate 15 (= Plate 26), Plate 16 (= Plate 30), Plate 18 (= Plate 14), Plate 19 (= Plate 16), Plate 20 (= Plate 3), Plate 26 (= Plate 5), Plate 30 (= Plate 2). These serious and blatant errors are inexcusable in a book of this price.

Twelve of the plates are rendered in full color as in the original edition of the work. The quality of the plates is good with fairly accurate color reproduction, although none can match the vivid coloration (particularly the blue hues) of the original chromolithographs. There is some graininess in the colors, but this is also evident in plates from original copies. The plate of *Nymphaea gigantea* (which served as the original frontispiece) is retained, but has been included among the other plates as Plate I. For some reason, none of the reproduction plates include the heading: 'CARNEGIE INSTITUTION OF WASHINGTON. WATERLILIES, PLATE [number]' as did the originals.

The remainder of the edition is a faithful reproduction of the original Carnegie Institution publication. Unfortunately, the reprint accurately reproduces the print quality of an original copy of the publication which apparently had rather poor type. The facsimile copy that I examined was quite lightly printed and contained numerous sections of broken print, scratches and other artifacts (e.g. a 'blob' of ink on the word 'elongation' on page 107), and an overall uneven intensity of the print (some lines looked much darker than others; some pages were printed darker than others). Several of the pages showed type 'bleeding' through from the overleaf, which did occur in the original. This was most noticeable on page 119 where the 'bleeding' text around figure 52 was distractive. None of these defects caused any major problem in legibility, but they are annoying in an expensive book. With print enhancement now possible through many types of computer software, it is puzzling why the publisher did not attempt to obtain a more uniform and darker impression, or use a better copy of the work to reproduce. The print quality of the original copies that I have seen is noticeably superior to that from which the reproduction was made.

To those yet unfamiliar with this work, the text is not strictly a taxonomic treatment of the genus *Nymphaea* but contains chapters on a variety of topics including history (26 pp.), root, stem, leaf, flower, fruit and seed structure (68 pp.), development (18 pp.), physiology (12 pp.), taxonomy (88 pp.), distribution (6 pp.), hybrids and cultivars (16 pp.), culture and uses (8 pp.), and a bibliography (22 pp.).

The taxonomic section (roughly one-third of the book), includes a key to 34 species which I have found to remain useful, although some portions of the taxonomy are outdated and in need of revision. The monograph has served well as a past reference. Fassett consulted Conard on his treatment of Nymphaea (p. 217) for his Manual of Aquatic Plants (Fassett, 1940). We relied on the key to identify specimens of Nymphaea ampla and N. jamesoniana in Florida where it performed wonderfully (Wunderlin and Les, 1980). Many other familiar names (e.g. N. odorata, N. tuberosa, N. alba) remain in wide usage today.

The descriptions are excellent and synonymy is surprisingly complete and accurate even by today's standards. Even when compared with the fine contemporary account of *Nymphaea* subgenus *Hydrocallis* by Wiersema (1987), Conard's taxonomy of nearly one century ago is not too bad. Of the ten species recognized by Conard, Wiersema (1987) recognized seven of the names, made one nomenclatural change, and assigned two names to synonymy. The biggest difference was Wiersema's addition of six additional taxa named from 1971 to 1984.

Despite its vintage, this work remains fundamental to any taxonomic research on *Nymphaea*. Indeed, Conard's monograph continues to guide modem taxonomic treatments of water lilies with its insight on diverse subjects including sclereid and seed morphology (Wiersema, 1987). There are numerous tables of data providing actual measurements of flower parts, leaves, tubers, etc. In addition to the plates, there are 82 illustrations mostly showing details of anatomy and morphology. Page 218 features what I believe is the only phylogeny ever proposed for the genus *Nymphaea*. This 'tree' summarizes Conard's concept of relationships in the genus and serves as a hypothesis for further systematic research on the genus.

This excellent treatment of water lilies reflects the scientific breadth of Henry Conard. Although he was trained primarily as a bryologist (Conard, 1959), he also published books on other topics including one on water lily cultivation (Conard and Hus, 1909) and several regional floras (e.g. Conard, 1943). He also assisted with the translation and editing of a book on plant ecology (Braun-Blanquet, 1932).

In his introduction to the reprint, Swindells provides other examples of the contemporary significance of Conard's monograph and refers to it as: "... truly one of the great botanical publications of the early twentieth century". The quality of the original publication has ensured its timeless value as a vital taxonomic reference that no systematic library should be without. If you are not fortunate enough to own an original copy of Conard's monograph, you are well advised to take advantage of this reprinted facsimile. Although I was disappointed with the quality of print and the errors in the plates that occur in the reprint, I am still delighted that such a valuable resource is once again available.

References

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